

LOUISVILLE MEDICAL NEWS.

"NEC TENUI PENNA."

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J. W. HOLLAND, A. M., M. D., Editor.
H. A. COTTELL, M. D., . . . Managing Editor.

THE DOMESTICATED BACTERIA OF UTOPIA.

In view of the important contributions to knowledge made recently by Pasteur, it is within the bounds of probability that within a few years a special artificial "vaccine" may be discovered for scarlatina, measles, and other acute infectious fevers of man.

A novel prediction allied to this has recently been made by Professor Pettenkorfer before the Society of German Naturalists. The influence exerted by the soil as a hygienic factor has been with him a favorite study. In a recent address he reiterated the theory of cholera with which his name has been long identified. He still holds that an epidemic of this disease is the result of certain relations of the ground, its water and its organic matter. By this theory he accounted for the remarkable immunity enjoyed by Lyons during the cholera years. This is so uniform an experience that dwellers in neighboring cities in times of danger resort to Lyons as a place of refuge. He thinks that theories of production in or transmission by air direct or by water fail to account for the security of Lyons. It is not considered better off in water-supply or exposure to contagion than other cities. He holds the view that in infected places the porous soil open to the reception of diarrheal filth allows of easy diffusion by underground currents in water of the specific organisms which breed there and engender cholera in man. He thinks it not unlikely that some soils are already occupied by benign bacteria to such a degree as to render

them sterile to noxious bacteria when introduced from without. Said he, these lowest representatives of organic life can therefore be made useful to us, and we must not be surprised if in future times the useful bacteria will be actually cultivated, and those only which are noxious thwarted in their struggle for existence. By domesticating the innocent forms in the soil under our houses the supply of organic matter may be so exhausted that the diseased bacteria will not have the common necessities of life, and will therefore be literally starved out.

It is rather a happy thought to fight these infinitely terrible mites with good fellows of their own size. It recalls Dr. Beale's scornful allusion to this kind of sport as "the hunting and extermination of hypothetical bacteria," which he thought a vain pursuit, "even though it were possible to catch and exterminate millions."

"DOCTORS WILL DIFFER."

One of the dicta of English sanitary enthusiasts is to the effect that scarlet fever, that scourge of childhood, is as much under the control of wise sanitary measures as yellow fever, and that government should make strenuous efforts to stamp it out by disinfection and isolation.

In the Medical Record of October 15th Dr. Henry M. Lyman defends with a trenchant pen the thesis that in England the effect of sanitary administration has been to increase the severity of its attacks and the percentage of mortality. He holds that in a country where this disease is endemic, and where there is reason to believe that it will continually originate, it is a worse thing

for the community to become filled by artificial protection, with people who are liable at any hour to be prostrated by this disease, than it would be to submit the human body during the training time of youth to the ordeal of exposure that all must bear who become fit to survive, and which appears in the long run to make a race tolerant of contagion.

This issue of the *News* illustrates again the truth of the adage which heads this article. A few weeks ago Dr. Speed read a paper before the Louisville Medico-Chirurgical Society on Hygienic Surroundings. The paper was received with enthusiasm, and its publication in the *News* suggested. It has been read with some interest and generally with approbation. To push the points home some striking analogies were presented. Of course reasoning by analogy is not as valid as a demonstration, but in the absence of proof to the contrary it is legitimate and carries a certain amount of force. One of the analogies, the "granite plat in the heavens," which precludes the generation of morbid agencies, was given as an illustration of the value of cleanliness. The other was the "One-hoss Shay" of Dr. Holmes, and was alluded to as an illustration of the absurdity of attempting by any sort of sanitation to perpetuate the lease of life.

The same mail which brought a private letter from Dr. Charles White, of New Orleans, the president of the American Public Health Association, saying, "I thank you for this paper, 'granite plat in heavens'! Good capital; it will live in the future," brought also the communication from Dr. Griswold which appears in this number. Dr. Griswold repudiates much of the wild sanitary teaching of the day, and we think takes Dr. Speed rather too literally in his objection to the two analogies mentioned above. Heavenly conditions on earth are certainly utopian, and doubtless Dr. Speed would say that, like all dreams of utopia, it serves to illustrate the perfect idea toward which all should strive, without, however, any hope of complete realization.

Original.

OBSERVATIONS ON "HYGIENIC SURROUNDINGS."

BY RUFUS W. GRISWOLD, M.D.

PART I.

The LOUISVILLE MEDICAL NEWS of October 29, 1881, has in it a paper read before a medical society in Louisville by Dr. J. J. Speed, a professor of the Hospital College of that place, entitled "Hygienic Surroundings." I have a fancy to criticise some points in it as not being tenable in the logic of facts that present themselves to the consideration of caustic inquiry. Without attempting to controvert the general principle involved in the paper, that what are known as hygienic surroundings bear some relation to the matter of health, I object to it on the ground that upon that point there is quite too much that is assumed and too little that is proved. No more widespread epidemic delusion has ever possessed the medical mind of the world than the present one that faulty and vicious surroundings within our control are the almost necessary and essential factors of the great majority of cases of most forms of zymotic disease, and that it is only required of us that we thoroughly correct the faults and these forms of disease will vanish. We are very gravely told by men who assume to be the deepest thinkers in the profession that our sicknesses are the outcomes of local faults; that if we have typhoid or typhus or intermittent or dysentery or diphtheria, etc., we have only ourselves to blame for it; that if we will correct our sewers, our sink-drains, our cess-pools, our privies, our pig-pens, our mill-ponds, and our autumnal rubbish, the millennium of health will descend upon us—we shall be immediately in the center of that heavenly Hygeia where sickness will no longer intrude and only the decay of old age will make any demand for coffins. The oncoming physician is not to be educated to the cure of diseases, but to the prevention of them; and when that oncoming physician and the world's people under his enlightened and watchful care shall become worked up to the full establishment of this beneficent hygiene, the manufacture and sale of drugs will retire into oblivion. Pills, plasters, and powders will no longer be parts of our portion and life will be wonderfully and happily prolonged. Pleasant delusion, but the basis of it is not sufficiently substantial.

The general line of argument in the paper of Prof. Speed is in substance a copy of what is readily to be met with every day, not alone in the medical and sanitary press but in the "public" press as well. Even the intellect that bestrides the tripod of the cross-roads country paper, no matter how profound its imbecility, has become the educator of the public mind in hygiene as well as in politics, religion, and morality. As illustration, take these few lines from a recent Connecticut daily on the matter of public health: "It is the old question of unwholesome sanitary conditions—bad drains, bad plumbing, bad sewerage, and the like; things that have come from ignorance or parsimony, and that breed typhoid and malaria and scarlet fever and diphtheria." This has the exact tinkle in it that we hear every day, and often from sources whence we might legitimately expect something more than the bald assumption. True the assumption is sometimes accompanied by illustration and argument, but the illustrations fall short of proof, and the arguments are fallacious.

Says Prof. Speed, "We are taught and we believe that in proportion to our control over (man's) surroundings exactly in that proportion is our assurance of health. To heat and moisture and decomposition we look for the source of many of our most fatal maladies. . . . Take care of your surroundings, secure perfect cleanliness, and thus preclude the formation of *materies morbi*." "The more thoroughly your grounds are drained and your houses are cleansed the greater is your immunity from disease. . . . Cleanliness and drainage seem to forbid—preclude—the existence of a deleterious atmospheric condition. . . . Perfect cleanliness forbids malaria." So much is assumed, and for argumentative proof of the truth thereof the professor adds, "New Orleans under military rule was free from yellow fever, *because* military rule kept her streets and her alleys clean." This is a fair example of the assumptions in etiology every day made, and a fair illustration of the kind of evidence adduced to prove the correctness of the postulate. Let us look at it a little.

And first, as to the illustration, it is but fair to say that the professor need not have confined himself to the single illustration above quoted to establish the claim advanced. With a little time spent in hunting current medical literature a thousand equally as good might have been presented, and all equally fallacious. When during the war a Northern

army was shipped to New Orleans, there was manifested more concern lest it should meet there the devastating potency of the yellow fever than the potency of Confederate rifles and rams. The unprincipled but sagacious civilian general at the head had the town cleaned up as a prophylactic measure. There was no yellow fever, and from thence on we have been so often pointed to the event as a remarkable example of the great uses of cleanliness as a preventive of anticipated disease that its iteration has become nauseous.

Now what are the facts? Yellow fever in New Orleans is not the rule; it is the exception. There had been years and years—rows of them—when there was no yellow fever in the city, neither had there been any cleaning *a la* the mode of General Butler. There is not the slightest proof—there is not even a respectable modicum of evidence—that the cleaning up had the most remote relation to the absence of the disease save as a mere coincidence. If the city in all the years of its previous existence, without the exhibition of that special kind of prophylactic effort, had been annually visited with the fever, and in that particular season there had been none of it, there would have been a strong probability that the cleaning had been happily efficacious; but even then it would have lacked that degree of positive proof essential to the establishment of an incontestable fact. To establish the benefit of the sanitary proceeding as a fact, there should have been a series of seasons without cleaning, and in them all the presence of the disease, with another series of cleanings and in them all the absence of the disease, and this often repeated. But so far from having any thing of this sort, or any thing the most distant approach to it, we have presented to us a single year of so-called sanitation, with the rule of absence of fever, as an evidence of what scientific effort in the removal of dirt can effect? It is scarcely necessary to say that the deductions drawn from this kind of evidence are fallacious, and that the argument contained in them is but flimsy trash; and yet it is the kind of thing to which we are daily treated by the professors in our schools, by writers in our journals, and especially by our sanitary engineers laudably desirous of some lucrative job.

To pursue this point a little further, and in the hope of interposing a small amount of obstacle against the reception of untenable inferences such as we have noticed, the

point is worth pursuing, let us take this example: A few months since there was going the rounds of the medical papers somewhat upon the benefits of intra-uterine injections after childbirth as a preventive of puerperal septicemia. One writer upon the subject, quite enthusiastic and convinced, related in evidence of the great good to be had out of the procedure the fact that he had used intra-uterine injections in thirty consecutive cases of midwifery without the occurrence of puerperal septicemia in a single case. Very good evidence of the efficacy of the treatment it might seem, and yet a little examination will show that it was no evidence at all. It is probable he would have had no septicemia omitting the injections. The probabilities of that were to me backed up by the fact that in a practical experience of six hundred cases of childbirth, in not one of which had I ever used intra-uterine injections, there had been no cases of puerperal septicemia. If in these cases a gill of New England rum had been emptied upon the abdomen of each of the mothers, the conclusion that the rum had prevented the septicemia would have been quite as legitimate and rational as the conclusion deduced from the use of carbolic-acid injections in the thirty cases spoken of above. The illogical logic which deduces a relation of cause and effect from such coincidences does not bear critical examination. It is a logic which underlies numberless superstitions, and seems to establish them, in fact does establish them, in thousands of minds content to examine only the surface; but it ought not to be sufficient to satisfy the intelligence of a profession which pretends at least to be built up upon scientific truths. The medicinal efficacy of the incomprehensible infinitessimalism of the homeopath is reared upon a basis just as sensible. The rational physician who is content to draw his conclusions in etiology and hygiene from similar grounds should not ridicule the followers of that magnificent humbug.

ROCKY HILL, CONN.

THE COLOR-BLIND.—At the conclusion of his address before the Section of Ophthalmology, International Medical Congress, Mr. Bowman dwelt upon the importance of the necessity of enforcing sufficient, frequent, and uniform test-examinations of the sight and of the sense of color in all persons engaged in the working of signals by land or by sea.

Correspondence.

Editors Louisville Medical News:

About fifteen years ago the late Dr. John D. Jackson gave me two steel engravings representing respectively the Village Doctor and the Village Priest. The former showed a muffled figure, mounted upon a brave and sturdy little horse, struggling at dusk through a furious snowstorm, and carrying a lantern in one hand. His face is half revealed and is refined and noble. In wandering about I lost this picture years ago, but it left an ineffaceable impression on my mind.

The British Medical Journal of October 1, 1881, contains some French verses upon this subject copied from the Paris Figaro. I venture to offer you a rough but almost literal translation of them.

STANHOPE P. BRECKINRIDGE, M.D.
CHATTANOOGA, TENN., November 6, 1881.

THE COUNTRY DOCTOR.

He is the country doctor,
Obscure, ignored, misunderstood.
Devotion is his lot in life.
Some one suffers; he is there.
It is night, and over the country
Snow spreads its white and icy shroud.
What matters? A shepherd comes with it;
The children await him on the threshold.
He enters the humble cottage.
No bread; often no bed to lie on!
Upon a pallet the poor mother writhes.
He appears; he consoles, he cures her.
O, brother! health to thee, whose modest life
Is one long sacrifice; to thee whom men forget,
But who in thy heart's depth dost always find
A courage equal to thy thankless task.
Yea, health to thee, dear brother. Christlike
Unto the poor below, thy recompense is above.

Editors Louisville Medical News:

In the News of November 8, 1879, and in the Transactions of the Indiana State Medical Society for 1881, will be found a description of my modification of Prof. Haines's test for grape-sugar in the urine. In these papers I state that my solution of copper in glycerin will remain unchanged for an indefinite length of time. I find, however, that a solution made in October, 1879, although unchanged in appearance, gives a considerable precipitate when boiled with a caustic alkali. This solution, which has served me for many tests, was perfectly reliable a few months ago.

This experience prompts me to suggest to physicians who use the glycerin solution to

make a fresh solution at least once a year, so as to have a reliable test-liquid always on hand.

The following rough method of applying the glycerin test will be found very convenient for those who do not keep the regular test-solutions: One or two drops of glycerin are dropped into a test-tube; a few drops of an aqueous copper sulphate solution are added, then about five or six times this quantity of liquor potassa is poured in and the whole boiled. The urine is then gradually dropped in, and if sugar be present the yellow or reddish color will suddenly appear.

L. S. OPPENHEIMER, M. D.

SEYMOUR, IND., November, 1881.

In chapter third eczema is happily characterized as a catarrhal inflammation of the skin. The term catarrhal hits off neatly the feature of moist exudation which plays such a prominent part in the clinical history. The special phases of the eruption in different parts of the body are considered important enough to receive detailed description and explanation in connection with the localities. Nothing has been omitted concerning the treatment that can be considered of practical import. This feature will be highly appreciated by that wide circle of doctors called on to treat this disease so common and often so intractable.

Reviews.

Eczema and its Management: A PRACTICAL TREATISE BASED ON THE STUDY OF TWO THOUSAND FIVE HUNDRED CASES OF THE DISEASE. By L. D. BULKLEY, A.M., M.D. New York: G. P. Putnam's Sons. 1881.

It has been said that if a book were written upon sulphuric acid and its relations it would embrace almost every chemical process of any importance. Of eczema it may with equal reason be said that to discuss it thoroughly is to go over almost the entire field of cutaneous medicine. Such is evidently the view of Dr. Bulkley, who has from this point of departure run his lines out to every skin-affection related either by resemblance or contrast. He has not attempted to make a brief statement of a few salient features, but with the relish of a successful enthusiast makes the most of his theme. He quotes as a key to the work a sentence from Fox: "The dermatologist must comprehend the nature of disease in general ere he can treat eczema successfully." Although his early training inclined him to adopt the teachings of the Vienna school on the local origin and pathology of eczema, he has been led by his own observations and reflections to urge to its furthest limits the constitutional as opposed to the merely local pathology and treatment.

In chapter second belief is expressed in the inheritance of gouty, strumous, and nervous states which predispose to this disease, though the disease itself has not given evidence of direct hereditary transmission. He finds in a large number of patients to whom special inquiry was addressed that malaria counts for very little as a cause.

A Treatise on the Diseases of Infancy and Childhood. By J. LEWIS SMITH, M.D., Clinical Professor of Diseases of Children in Bellevue Hospital Medical College, New York, etc. Fifth edition, thoroughly revised, with illustrations. Philadelphia: Henry C. Lea's Son & Co. 1881. 8vo, pp. 829.

This well-known book has been accorded by common consent the rank of a standard. We shall not express any criticism of a work which by the rapid succession of its editions attests its value. The present issue has been revised and enlarged from the fourth edition which appeared two years ago. These facts will probably be enough to satisfy any doctor not acquainted with the work that it is well worth having in the library.

Books and Pamphlets.

WALSH'S RETROSPECT (October, 1881): A Quarterly Compendium of American Medicine and Surgery. Washington, D.C.

OVARIOTOMY DURING PREGNANCY. By H. P. C. Wilson, M.D., Baltimore. Reprint from Volume V, Gynecological Transactions, 1881.

OBSERVATIONS ON THE ORIGIN, CHARACTER, AND TREATMENT OF OINOMANIA. By T. L. Wright, M.D., Bellefontaine, O. Reprint.

EIGHTH ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF MICHIGAN FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1880.

ATRESIA OF THE VAGINA AND UTERUS. By A. F. Erich, M.D., Professor of Diseases of Women, College of Physicians and Surgeons, Baltimore, etc. Reprint.

ARTIFICIAL ANESTHESIA AND ANESTHETICS. By Henry M. Lyman, A.M., M.D., Professor of Physiology and Diseases of Nervous System, Rush Medical College, Chicago. (Wood's Library Standard Medical Authors, Vol. IX.) New York: Wm. Wood & Co. 1881.

LEFT SUPERIOR MAXILLA AND MALAR BONE REMOVED. By W. B. Rogers, M.D., Memphis, Tenn. Reprint.

THE USE OF HOT WATER IN THE LOCAL TREATMENT OF DISEASES OF THE EYE. By Leartus Connor, A.M., M.D., Detroit, Mich. Reprint.

ROCKY MOUNTAIN MEDICAL TIMES: A Monthly Journal of Medical, Surgical, and Obstetrical Science. Edited by Thomas H. Hawkins, M.D., and Frank A. E. Disney, M.D. Terms, \$3 a year in advance. Denver: Edwin Price & Co., publishers.

THE SCIENCE AND ART OF MIDWIFERY. By W. Thompson Lusk, M.A., M.D., Professor of Obstetrics and Diseases of Women and Children in Bellevue Hospital Medical College, etc. With numerous illustrations. 8vo, pp. 709. New York: D. Appleton & Co. 1881.

ECZEMA AND ITS MANAGEMENT: A Practical Treatise based on the Study of Two Thousand Five Hundred Cases of the Disease. By L. Duncan Bulkley, A.M., M.D., Physician for Skin and Venereal Diseases in New York Hospital, etc. Pp. 342, price \$3. New York: G. P. Putnam's Sons. 1881.

TRANSACTIONS OF THE MEDICAL AND CHIRURGICAL FACULTY OF STATE OF MARYLAND. Eighty-third Annual Session, held at Baltimore, April, 1881. Wilson G. Regester, M.D., secretary.

This year's volume is made very portly by having in the same cover a report of the celebration of the Sesqui-centennial Anniversary of the Founding of Baltimore by the Faculty at their hall.

WALSH'S PHYSICIANS' CALL-BOOK AND TABLET. Ralph Walsh, M.D., 322 C Street, Washington, D.C.

Its printed matter has been carefully selected with a view to get just what is needed in emergencies and at the bedside. The blank pages for registering visits are so ruled that they will accommodate a practice of thirty-five patients a week for one year, and can be commenced any year or any time of the year.

WALSH'S PHYSICIANS' HANDY LEDGER. Ralph Walsh, M.D., 322 C Street, Washington, D.C.

The Handy Ledger is a companion to the Call-book, and is designed to assist the hurried and busy practitioner in keeping his accounts.

Formulary.

AMENORRHEA.

In cases of this nature, due to torpid action of the ovaries, Dr. Goodell orders the following prescription:

R. Ex. aloes..... 3 j; 4.00 Gm.;
 Ferri sulph. exsic..... 3 ij; 8.00 Gm.;
 Assafet..... 3 iv; 16.00 Gm.

M. et in pil. No. c, divide.

Sig. One pill to be taken after each meal; this number to be gradually increased, first to two and then to three pills after each meal. If the bowels are at any time over-affected, the patient is to stop and begin again with one pill.

Where the amenorrhea is due to arrested development Dr. Goodell has derived the very best results from the constant use of Blaud's pill, as recommended by Niemeyer:

R. Pulv. ferri sulph..... } aa 3 ij; 8.00 Gm.;
 Potas. carb. purae..... }
 Mucil. tragacanth..... q. s.

M. et in pil. No. xlviii, divide.

Sig. To be given daily, in increasing doses, until three pills are taken after each meal.

This gives the large quantity of twenty-two and a half grains of the dried sulphate of iron per diem.

If these pills give rise to constipation, Dr. Goodell uses this formula:

R. Pulv. glycyrrh. rad..... } aa 3 ss; 15.00 Gm.;
 Pulv. sennae..... }
 Sulph. sublim..... } aa 3 ij; 8.00 Gm.;
 Pulv. feniculi..... }
 Sacchar. purif..... 3 jss; 45.00 Gm.

M. Sig. One teaspoonful in half a cupful of water at bedtime.

Where the suppression is due to change of habits and loss of health, tonics are employed. When the suppression comes on suddenly, from cold or exposure while in the midst of the menses, and is accompanied by severe lumbar pains, the patient is placed in a mustard hip-bath, a Dover's powder is administered, she is put to bed, and hot drinks are given to provoke copious diuresis and diaphoresis.—*Medical Record*.

TINCT. FERRI PERCHLORIDI.

Dr. Reed, Professor of Materia Medica in the Montreal College of Pharmacy, observes that, notwithstanding so many new preparations of iron have been brought forward, this old tincture still holds its place in spite of the unpleasantness of its taste. There is, he says, a simple method of dealing with it which is not so widely known as it deserves, and which consists in merely adding a little alkaline citrate. For every dram of the tincture add half a dram of citrate of potash. The liquid is then converted into a beautiful green color, and is quite free from the peculiar roughness of the iron. For a tablespoonful dose, containing ten minims, the prescription may be—

Tinct. ferri mur..... 3 ij; 8.00 fl.Gm.;
 Pot. cit..... 3 j; 4.00 Gm.;
 Syr. limon..... 3 jss; 45.00 fl.Gm.;
 Aqua, ad..... 3 ij; 60.00 fl.Gm.

Another advantage of the mixture is that astringent tinctures—as bark, gentian, etc.—may be added without decomposition.—*Canada Med. Journal*.

UNGENTUM DIACHYLYON HEBRA CUM PETROLATO.

The *Pharmaceutische Zeitung* reports that Prof. Hebra (now deceased) has of late been in the habit of substituting petrolatum (petroleum ointment) for the linseed oil formerly employed in his famous ointment, composed of lead plaster and oil. The combination is said to furnish excellent results.—*A. Vogler, Ph.D., in the Pharmacist and Chemist*.

SOMETIMES the interior of the nares feels very sore from erosions, or crusts are forming in consequence of catarrhal affections. Zinc ointment applied freely by means of a camel's-hair brush acts like a charm, a single application often being sufficient.—*Ibid.*

Pharmaceutical.

COD-LIVER OIL.—The value of this article as a remedy in all diseases of malnutrition has long been an established fact, but its liability to disagree with weak stomachs has proved a serious drawback to its use. To do away with this objection and to make the oil as palatable and as assimilable as any of the other constructives are objects which have for years claimed the attention of our leading pharmacists, and Messrs. J. C. Baker & Co. have at last secured this *desideratum*. By selecting only the finest specimens of livers from the Norway cod-fish and preparing the oil with scrupulous care they have produced an article that will stand the severest tests of the chemist and meet the most exacting demands of the therapist; while by means of an elegant and stable emulsion with hypophosphates of lime and soda they have robbed the oil of all its objectional qualities, converting a formerly distasteful drug into a pleasant and palatable article of diet for the sick. We have given it abundant trial in the treatment of various forms of scrofulous and tuberculous disease, and can say that it meets every requirement; while as a testimony to its purity we are glad to be able to state that specimens, both of the unmixed oil and the emulsion, which we have had under observation for more than two years are as fresh today as when they left the hands of the manufacturers. The free oil has not changed in color or shown any evidence of rancidity: while the emulsion, though in some instances stratified, gives no sign of fermentation or chemical change.

MANUFACTURE OF AMMONIA FROM THE ATMOSPHERE.—A process for the manufacture of ammonia from the nitrogen of the air, invented by Messrs. Rickman and Thompson, encourages belief that this often-attempted problem has at last approached a practical solution. The process is based on the deoxidizing of air by coal dust in the presence of water vapor at a full red heat, the water being simultaneously decomposed and yielding hydrogen, which combines in the proper proportion with the nitrogen thus set free. Common salt is introduced with the coal into the furnace wherein the reactions are effected, which at the bright red heat maintained is also decomposed. The free chlorine from the salt combines with the nascent ammonia, forming there-

with ammonium chloride. The ammonia being thus combined it does not decompose under the action of the heat as would otherwise be the case. Should this process prove as practicable as has been anticipated, ammonium chloride will be furnished at a cheap rate and in large quantities, and will have great influence upon the future of artificial fertilizers.—*Oil, Paint, and Drug Reporter.*

LACTUCARIUM is generally preferable to opium as a sedative for infants, and it is occasionally prescribed in form of an "emulsion," so called, i. e. the mass to be triturated with successive portions of water until it is brought to a minute state of division. This is tedious, but the process may be greatly facilitated by triturating the lactucarium with a few drops of spirit of nitrous ether before adding the water; it is then readily divided in the liquid.—*Adolph Vogler, in the Pharmacist and Chemist.*

Miscellany.

THE TREATMENT OF CLUB-FOOT WITH APPARATUS.—Dr. James S. Green, of New York, contributes to the November number of the New York Medical Journal and Obstetrical Review an article in which he argues that a great majority of the most intractable forms of club-foot may be treated successfully without the use of the knife. To effect the purpose of safe, comfortable, and certain reduction of chronic club-foot by mechanical means, he remarks, the instrument must perform the following functions:

1. It must effect by extension *the separation* of the articular surfaces of the bones involved exactly in the position in which they are presented by the deformity. The extension should be so complete that the synovial surfaces of the tarsal bones will slide *over* and *not upon* each other when the foot is twisted into its normal position. (This condition being obtained of itself reduces to a minimum the amount of force necessary to be exerted in moving the bones, which are thereby not jammed against each other, the synovial membrane and the cartilages injured, and ulceration of the soft parts made imminent.)

2. It should produce the *gradual* reduction of the foot to a normal position by continuous stretching, acting exactly in an opposite direction to the lines of the deformity.

In talipes equino-varus (the most common form) it should flex the foot, thereby overcoming the contraction of the gastrocnemius and soleus muscles, while at the same time it should abduct the foot, reducing the rigidity of the tibialis anticus and tibialis posticus muscles. It should stretch the plantar fascia after overcoming the tendo-achillis and during the reduction of the tibial muscles. Withal, the instrument should be light in weight, portable, and easily worn, so that the patient may assist the cure by walking upon the foot which is being gradually extended and drawn toward its normal position. It should be so constructed that as the opposing tissues yield to the applied forces the advantage gained, be it ever so little, can be easily seized and retained.

The "compound club-foot twister," an instrument employed by the author and his associate, Dr. C. F. Stillman, is described as being so constructed as to twist the anterior portion of the foot on the posterior at the medio-tarsal joint, and also to gradually and painlessly alter the angle of the foot with the leg at the ankle-joint. It consists of a local extender provided with a slotted arc for graduated movement placed each side of the ankle-joint, and another placed in front of the arch of the foot. Below these are attached to a flexible felt or leather sole on which the foot is firmly fastened by bandages, and above they are connected to metal terminal plates which are bound down to the leg by some immobile dressing. This splint allows the foot to be twisted back into shape without pain, as it provides a local extension which relieves the parts from strain and attrition during the twisting, and also allows the patient to walk without interfering with the action of the instrument, the foot being entirely under the control of the surgeon. The instrument and dressing used in a case related weighed thirteen ounces.

THE STUDENTS OF TODAY: THE PRACTITIONERS OF TOMORROW.—How shall they be directed, and in what quarter shall they make their onslaught with the best chances of victory? We bid them advance whither science beckons; to turn a deaf ear to the easy and plausible blandishments of the "old fogey" school, who fondly dwell upon the simple charms of "practical" studies in apprenticeship and rule of thumb; who talk glibly of the "experience" of years, of the "skilled finger," the "educated touch;" of "the rule of thumb;" of the "rough and ready" practices of our fathers; of the "changes of

type;" of the good "old-fashioned blue pill and lancet;" who eye ophthalmoscopes askance; who "frankly confess" that they look upon the sphygmograph as a scientific toy; whose urinary cabinet is confined to a bottle of nitric acid, a spirit lamp, and a specific-gravity bulb; who asks what is the use of the laryngoscope to the general practitioner; to whom the globule-counter and the hemochromometer are as cabalistic enchantments; who feel doubtful about temperature-charts, shirk calculations, and limit their electrical enterprise to turning the wheel of a mechanical "American machine" for paralyzed patients. These are the signs by which the bad adviser may be known by the young student; and, once recognized, he should be avoided.—*British Med. Journal*.

STUDENT LIFE IN VIENNA.—Most of the American medical students are making a specialty of the eye, ear, and throat. The clinical material here is immense. The finest of all is the touch course, in the lying-in ward. It is worth a trip for that alone. In one course you have the opportunity of examining at least one hundred pregnant women, in all the different stages, and of applying the forceps and other manipulations under the guidance of the professor. There is nothing that can bear favorable comparison to it in America. Excepting Paris, Vienna is the most expensive city in Europe. The climate is exceedingly changeable, demanding of one great discretion as regards clothing. Please allow me to correct a false impression that nearly all Americans possess regarding the cheapness of student life in Europe. If a student attends all the courses he wishes and obtains comfortable board, it is not possible to spend less than one hundred dollars per month. This is even calculating very closely, for every thing is very dear.—*Cor. of College and Clinical Record*.

COMPULSORY REVACCINATION.—T. Garrett Horder, public vaccinator in Cardiff, states (*London Lancet*) that an inspection of the school-children of his town resulted in the discovery of a hundred without any marks of vaccination, and that among those who had marks at least twenty-five per cent were unprotected, either because the marks were too few in number or imperfect in character. He agrees with the editor of the *Lancet* in the opinion that smallpox will never be stamped out in England until a compulsory revaccination act is passed.

THE LATE DR. W. W. HENDERSON, OF COVINGTON, KY.—The Committee on Necrology of the Kentucky State Medical Society will find in the life of the late Dr. Henderson, who died September 25, 1881, much to eulogize. At a special meeting of the Cincinnati Obstetrical Society warm praise was pronounced upon him in words to the following effect: He was a man of mark in the community in which he lived, winning his eminence by his sterling character and the conscientious discharge of his duties. He was a man of strong convictions, never wavering in his devotion to what he considered right. While his character was of this positive order, he never wounded others who differed from him in opinion. While Dr. Henderson was a genial, trusted friend, it was as a physician that he appeared at his best. He loved his art and kept fully abreast with it. He was jealous of the honor of his profession, guarded its good name, and gave to it the undivided energy of a vigorous manhood.

THE SOUTHWESTERN KENTUCKY MEDICAL SOCIETY met in semi-annual session at Columbus, Ky., on Wednesday, November 9th, at 10:30 A.M., with Vice-president Dr. J. H. Norris, of Metropolis, Ill., in the chair, and Dr. Samuel H. Singleton, of Paducah, Ky., secretary. On account of the extensive prevalence of typho-malarial fever in the country the attendance of the members of the society was very small. Notwithstanding the small number present several papers of interest were read and discussed.

After remaining in session *one* day, the society adjourned to meet in the city of Paducah on the first Tuesday in May, 1882. Before adjourning action was taken toward bringing about a union of the Society with the McDowell Medical Society.

PRIZES WORTH STRIVING FOR.—The Royal Academy of Medicine of Brussels announces a prize to be awarded in January, 1884, of eight thousand francs (\$1,600) for the best explanation of the pathology and therapeutics of the diseases of the nervous centers, especially epilepsy, illustrated by clinical data and experiments. If the essayist is successful in making a decided advance in the therapeutics of such diseases; if, for instance, he discovers a successful treatment for epilepsy—he is to receive, in addition to the sum above stated, a second sum of twenty-five thousand francs (\$5,000). This money has been placed in the hands of the

academy by a person who does not wish his name to appear. In Italy the Academy of Medicine of Turin offers a prize of twenty thousand lire (\$4,000) for the best essay on The Physiopathology of the Blood. This is the Riberi prize, and is open to the world, but the essay must either be in the Latin, French, or Italian tongue.—*Med. and Surg. Reporter.*

SMALLPOX AND ANTI-VACCINATORS.—The wickedness of encouraging the anti-vaccination agitation could not, it is opportunely pointed out by the *Globe*, be more strikingly proved than by an account it printed of the origin of an outbreak of smallpox in Rotherhithe. "A leading anti-vaccinator," Escott by name, who had none of his children vaccinated, has lost his wife and two children by smallpox, and four others have had the disease. Escott borrowed a suit of mourning from a friend named Angus to attend his wife's funeral, and returned the clothes without disinfection, with the result that the lender caught smallpox and died. Since then nearly every house in the neighborhood has been attacked, and sixteen patients have been removed to the hospital.—*Brit. Med. Jour.*

A NEW DISINFECTANT.—A cheap and useful disinfectant is a solution of chloride of lead. It is inodorous, effective, and its cost very small. It may be prepared as follows: Take half a dram of nitrate of lead and dissolve in a pint or more of boiling water. Dissolve two drams of common salt in a pail or bucket of water, pour the two solutions together, and allow the sediment to subside. The clear supernatant fluid will be a saturated solution of chloride of lead. A cloth dipped in a solution of chloride of lead and hung up in a room will sweeten a fetid atmosphere instantaneously, or the solution thrown down a sink, water-closet, or drain, or over a heap of refuse, will produce a like result.—*Progress of Science.*

PAPAYA AND PAPAINA.—Dr. E. Bouchut, in an article on these medicines, reports that he injected a solution three times into an adenoma of the neck, into one point and into many points, according to the size of the tumor. At the end of two hours the pain was very great and attended with a violent fever. After three days the ganglæa softened and were converted into abscesses which might be opened with a bistoury. In three days more the abscesses healed. In

three cases of cancer of the breast and in one of the inguinal ganglia, after castration in the hospital of St. Louis, the injections of papaina were efficacious. M. Bouchut, in further experiments with papaina, finds that it is a tenifuge, for after administration to a child segments of tapeworm twenty-five centimeters long and in a partially digested state were voided. In the Mauritius it has long been known as a remedy for round-worm, and it seems probable that this new remedy may have a future before it as an anthelmintic.—*Med. Press and Circular.*

A CEMENT THAT WILL RESIST ACIDS.—To make a cement for glass that will resist acids, take ten and a half pounds of pulverized stone and glass, and mix with it four and three quarter pounds of sulphur. Subject the mixture to such a moderate degree of heat that the sulphur melts. Stir until the whole becomes homogeneous, and then run it into molds. When required for use it is to be heated to 248° F., at which temperature it melts and may be employed in the usual manner. It resists the action of acids, never changes in the air, and is not affected in boiling water. At 230° F. it is said to be as hard as stone.—*Oil and Drug News.*

VITALITY OF TRACHEOTOMIZED PERSONS. It having been asserted by writers, Mougeot among others, that persons tracheotomized for croup are unlikely to pass the age of puberty, Dr. Thouvenet (Académie de Médecine, Paris) has written an article going to prove the contrary. Among persons operated on by Thouvenet there are a number at present living at the ages of thirty-four, thirty, twenty-nine, twenty-seven, twenty-six, etc., years respectively.—*Medical Times.*

COITION DURING PREGNANCY.—In the July number of the American Practitioner Professor Theophilus Parvin takes strong ground against coition during pregnancy. He asserts that it violates nature's law as observed in the lower animals, that it is as a rule odious if not painful to the woman, that probably half the cases of spontaneous abortion may be attributed to it, and that it aggravates the leucorrhea and nausea of the early months.

CAUSE AND EFFECT!—A lady visiting a friend just confined remarked to the grandmother, "But how small the child is!" The old lady replied, "Well, we had a homeopathic doctor."—*Cincinnati Enquirer.*

Selections.

Treatment of Secondary Puerperal Metrorrhagia.—By Theophilus Parvin, M.D., Professor of Obstetrics and Gynecology, University of Louisville. From *Gynecological Transactions*, Vol. V:

Uterine Compression. The first impulse of the practitioner called to a case of puerperal hemorrhage is to place his hand upon the abdomen and ascertain the state of the uterus as to contraction or relaxation, not that commonly in secondary hemorrhage there is an accumulation of blood in the uterus, for usually this is an open, not a concealed hemorrhage, but to secure, if need be, the final uterine hemorrhagic uterine contraction. Where compression is necessary the hand may be applied solely through the abdomen, or with one hand thus used and two fingers of the other hand making counter-pressure upon the posterior portion of the cervix.

The Tampon. In the classic monograph of Leroux, written more than a century ago, it is stated that the most certain way of arresting uterine hemorrhage is by pieces of linen or tow dipped in pure vinegar, with which the vagina is packed, or sometimes these pieces are placed in the womb. Leroux asserts that the vinegar is both *antiputride* and *antiphlogistique*.

But may not the tampon convert an open into a concealed hemorrhage, and thus in no wise diminish but rather increase the peril of the patient, in that it induces a false security? The story which Baudelocque narrates is in point: A practitioner, whose patient was in danger by reason of puerperal hemorrhage, could find nothing at hand for a tampon; so he jerked off his wig, tore it in pieces, and thrusting them into the vagina arrested the external flow, but the internal hemorrhage was mortal—he had vainly sacrificed his wig.

Never tampon if the uterus can contain an amount of blood sufficient to endanger life, was the common teaching of our student days. Hervieux, as I have said, almost entirely denying secondary uterine inertia, admits mechanical distention. Practically the result is the same whether we attribute it to inertia or call it mechanical distention. The case of Madame Lachapelle and that of Dr. Maxwell prove that there may be complete uterine relaxation several days after parturition. Thus, then, if we obey the rule given a moment ago we must not use the tampon in most cases of secondary hemorrhage. But is the rule wise? McClintock used the tampon successfully in one case twenty-four, and in another twenty, hours after delivery. When manual abdominal compression of the uterus is maintained the tampon can not be a dangerous, but will often prove a most efficient means of treating a serious secondary hemorrhage.

Compression of the Abdominal Aorta. This probably was first advocated in 1797 by Rüdiger, an obstetrician of Tübingen. His method was by the hand introduced into the uterus, pressing through its posterior wall upon the vessel. Ulsamer in 1825 made known the method of abdominal aortic compression; it was strongly indorsed in 1828 by Siebold, from his own personal experience; and Baudelocque was its warm advocate. Dr. Barnes reckons it only a momentary resource. But it will be remembered that in Duhamel's case, previously referred to, the compression was kept up five hours and was successful. Dr. L. Gros has given nine cases of puerperal hemorrhage in which aortic compression was successfully

used. Very able theoretical arguments have been made against aortic compression, but stronger than them all is the simple fact that it has succeeded in some most serious cases. Of course, that it may be done efficiently the compression must be performed alternately by two or three, for the compressing hand needs rest after twenty or thirty minutes. However, this method becomes less likely to be available the more remote the hemorrhage is from parturition, while the abdomen of the newly delivered woman is peculiarly favorable for it.

Uterine Injections. Leroux states that Galen is almost the only one of the ancients who recommended them, and he further mentions his having thus cured a hemorrhage which had lasted four days. According to Leroux also, Prosper Alpinus, of the University of Padua, cured his wife of metrorrhagia by injecting the uterus with a decoction of Arabian acacia in wine. Andrew Pasta, 1750, advised, in extreme cases of uterine hemorrhage, injection of oil of turpentine, of nitric, sulphuric, or of hydrochloric acid, under the name of stimulants for uterine inertia. Then in the present century followed injections of the salts of iron, of gallic acid, of tannin, of cold water, of vinegar and water, of tincture of iodine, of alcohol and water, and finally of hot water.

It may be conceded that uterine injections carelessly given have been followed by the most serious consequences. But adopting a comparison used by a recent French writer in regard to another matter, must we reject the bistoury because it has been thrust into an aneurism for an abscess? So, too, it is known that injections into the uterus—iodine and tannin as well as iron—even when carefully made, have been followed by severe shock or by dangerous pelvic inflammation, or by death. But are we to renounce an esthetic because now and again, notwithstanding the wisest precautions, an anesthetized patient dies? Some risk may always be run whenever a great, immediate peril is to be removed.

Granting then the propriety of uterine injections in grave cases of puerperal hemorrhage, what shall we use? Cold water? It has the advantage of being always available, but as a direct hemostatic it is powerless, and only does good by inducing uterine contraction. Moreover, it probably must be used in considerable quantities, and the condition of a patient with her clothing and that of the bed soaked with water is by no means conducive to rest. Still more, the depressing influence of cold may in some cases be dangerous. Madame Lachapelle recognized such danger when the applications of cold water were merely external, remarking that these means ought always to be regulated by the violence of the accident and the forces of the patient, stating that a very feeble subject may be thrown into a mortal prostration by too great cold.

Shall we use hot water? Here again we have means generally available, and not likely to produce either the shock or prostration that cold may. But hot water as a hemostatic proves its utility more especially in cases when there is oozing from small vessels that have been cut or ruptured, and when it does good in the arrest of grave puerperal hemorrhage, this must be accomplished by exciting uterine contraction. In choosing between hot and cold water certainly the preference should be given the former.

But the injection oftenest used, and that which is regarded with the most favor, is of a solution of one of the salts of iron, the perchloride being that which has been especially advocated by Dr. Barnes, the great

English representative of this practice. The only substitute for the iron injection that has been brought prominently before the profession is that of iodine. This, originally proposed by Duperris, in 1857, has been ably advocated by Dr. J. D. Trask. But as Dr. Barnes said in reference to injections of iodine, in 1876, so it may be said now, "the amount of evidence is still too small to justify a decided opinion." At the meeting of the Obstetric Section of the British Medical Association, a year ago, Dr. Barnes reported a case where injections of iodine, then of hot water, failed to arrest a uterine hemorrhage, which yielded to the iron injection. The chief argument made by Dr. Trask against injecting a solution of iron is the production of septicemia; but in answer to this Dr. Barnes, whose experience as to this injection certainly is very great, declares that he has seen "no case in which septicemia could reasonably be traced to the practice."

The strength of the solution advised by Dr. Barnes is one part of the liquor ferri chloridi fortior to three of water.

Hervieux states that for several years he has been using, for puerperal hemorrhage, uterine injections by means of a sound with a double current; that having made them hundreds of times he has not had a single accident; and that caustic solutions injected with proper precautions have for their ordinary, if not constant, effect the arrest of the hemorrhage, either by causing uterine retraction or by coagulating the blood at the place of exit from vascular orifices. The following is the formula for the iron solution he uses. It will be observed that it is stronger than that advised by Dr. Barnes, but rendered less irritating by the addition of sodium chloride:

Chlorure de sodium pur.....	15 grammes;
Solution de perchlorure de fer neutre à 30°.....	25 grammes;
Eau distillée	60 grammes.

Let the precautions so strongly urged by Dr. Barnes be faithfully observed—such as completely emptying the uterus, whether of clots or placental fragments, of making the injection slowly and directly upon the bleeding surface, and of securing free exit from the uterus, and the perils attributed to the iron solution, either conjectural or actually observed, are prevented; especially there can be no considerable clot to distress the patient or by its subsequent breaking down become a source of septic infection, no fragment of placenta to produce a similar infection; and these conditions were found in two of the cases terminating fatally which have been advanced against the practice. Where injecting the uterus is feared, the styptic may be used to saturate a sponge or portion of cotton wool, and this be carried into the uterine cavity and applied to the bleeding surface. This plan was resorted to by Schreier as early as 1854, and is highly commended by Dr. Wynn Williams, Winckel, and others.

Having considered the chief means resorted to for the arrest of dangerous puerperal hemorrhages, I shall briefly refer to some other means, less important indeed, but often of great value.

Cold. Cold water poured from a pitcher upon the abdomen, after the manner of Gooch; ice to the abdomen, in the vagina, in the uterus; flapping the abdomen smartly with the corners of a wet towel, as advised by Barnes; ether-spray upon the abdomen, as used by Broadbent and Hicks, etc. All these means do good if the irritability of the uterus can

be evoked. But if that be lost by the exhausting flow, they are powerless; and in no case should they be persisted in to the neglect of more powerful means, if the uterus makes no prompt response.

Ergot. The stomach may be so irritable as to reject it; and besides, the battle may be lost while waiting for the reinforcement to arrive, the patient die before the medicine is absorbed, especially as absorption is at its minimum in such prostrate condition of system. Finally, the same remark applies to this medicine as was made in regard to cold—dependent upon irritability, it is vain when irritability is lost. But it may be given hypodermically, and thus two of the objections are obviated. Especially may it be of great value to give them ergotin in sulphuric ether. Nevertheless I must believe that ergot is not so much needed in the fierceness of the fight as to assist in holding the citadel first won by other means.

Quinine. Even in hemorrhages unassociated with malarial fever, but which are periodical in recurrence, this agent is of the first importance. So, too, where there is no periodicity it is often useful.

Opium. Its use in uterine hemorrhage dates at least as early as Hoffman, and it has been a great favorite with many prominent British practitioners. But opium is an agent for the after-treatment rather than for the time of the flooding. It relieves spasmodic uterine contraction; it sustains an exhausted nervous system; it secures rest. Collins gave it with a free hand, stating that he never saw any injurious effects from thirty to forty drops of the tincture administered every twenty or thirty minutes and continued until one hundred and fifty or two hundred had been given, while Barnes advises thirty or forty drops of Battley's solution once in two or three hours.

Hot Baths. This treatment, suggested by Tarnier, has been strongly advocated by Bailly, who includes secondary hemorrhage between the second day and one month after delivery. These baths are used only ten days or more after labor; the temperature about 34° C., and the period of immersion varies from twenty minutes to half an hour. I am not sure that this method of treating secondary hemorrhage has been used in this country.

In conclusion, several other topics belonging to the therapeutics of uterine hemorrhage might be presented, such as *position, transfusion, etc.*, but I do not attempt an exhaustive paper—a term that sometimes has a double application, application to the subject and to the hearers, and I shall be quite satisfied if by the valuable discussion which ensues it may be evident, adopting a comparison from Horace, that I was at least a whetstone.

On Vaccinal Skin Eruption.—In his paper before the London Congress Dr. Gustav Behrend (Berlin) whose position as public vaccinator had enabled him to pay considerable attention to this subject for several years, gave reports of seven cases; of these five (pustular, herpetic, and erythematous) appeared in the course of the first three days after vaccination, and one (resembling measles, but without fever and catarrh) on the eighth day. The seventh case was that of a rickety child in whom pre-existing eczema was aggravated by vaccination. Further, the author was frequently informed by the mothers of children whom he had vaccinated that evanescent erythema and urticaria had appeared in the first twenty-four hours, rapidly subsiding, so that they were no longer visible on the day of inspection (seventh day). The

varied eruptions described were mild and underwent spontaneous involution; they were not caused by any specific action of vaccine lymph, as precisely similar ones were noticed after the administration of certain drugs and articles of food. The author considered that any blood change might give rise to skin eruptions (pyemia, septicemia, operations, wounds), but that a certain predisposition was also a necessary factor in their production. There were two distinct phases in the course of vaccina during which eruption might appear: (a) in the early ones (first three days) the vaccination-wound itself might be a factor; (b) the latter ones, which (beginning from the eighth day) were probably due to absorption of certain materials from the developed pustule. Analogous eruptions occurred in variola; the earlier formed during the prodromal period before the outbreak of the variolous eruption, while others appeared during the stage of maturation or later. This analogy with vaccine-eruptions showed that they were not due to any specific operation of the poison of variola, and especially that the prodromal eruptions did not possess the prognostic value which was commonly attached to them.

Dr. Hebra (Vienna) remarked that the prodromal eruption of smallpox could be diagnosed from its localization. It was always on the abdomen. It was certainly produced by variolous poison. He has seen one case of vaccine-eruption after the eighth day.

Prof. Hardy (Paris) remarked that vaccine-eruptions were of three kinds: (1) generalized vaccina, which is common; (2) exanthematic eruptions over the whole body, usually occurring before the development of the vaccine; (3) diathetic eruptions, eczema, etc. Except an eczema the prognosis was favorable. He referred, however, to one case of pustular gangrene. He himself had been revaccinated during the siege of Paris. Three days afterward he was attacked by severe general urticaria, followed by bronchitis.

Dr. Behrend in reply remarked on the great rarity of vaccina gangrenosum.—*Proceed. Intern. Cong.*

Lactic Acid in Phthisis.—A. D. Macdonald, M.B., C.M., writes to the British Medical Journal:

I have been struck by the observation that in some cases where there was a strong hereditary predisposition to phthisis acute rheumatism had supervened early in life, and by middle age phthisis had not yet appeared. Besides, I understand that in Madras, for example, there is a large proportion of rheumatism to a comparatively smaller proportion of phthisis. May there not then exist some degree of antagonism between these diseases, and is there not in the latter a deficiency of the lactic acid poison of the former?

On the 5th of June last I administered ten minims of lactic acid thrice a day to a patient who had a vomica in the apex of the right lung, and the left apex had a deposit of tubercle. On the 11th the patient expressed herself as feeling better, but she complained of rheumatic pains in her joints for about two hours after each dose, and this in the absence of being informed as to any effect to be produced. Another patient to whom I gave the acid stated that it relieved her cough more than any thing else she had. Both thought the acid very agreeable as a thirst-quencher.

I should be glad of some light upon the point as to whether koumiss in phthisis, as in diabetes, benefits in part at least by its containing lactic acid.